UNITED
NATIONS

S

Security Council

Distr.
GENERAL

S/1997/774
6 October 1997

ORIGINAL: ENGLISH

NOTE BY THE SECRETARY-GENERAL

1. The Secretary-General has the honour to transmit to the Security Council a report submitted by the Executive Chairman of the Special Commission established by the Secretary-General pursuant to paragraph 9 (b) (i) of Security Council resolution 687 (1991) of 3 April 1991.

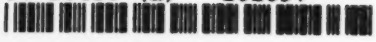
2. The present report is the fourth report by the Executive Chairman of the Special Commission following the adoption of Security Council resolution 1051 (1996) of 27 March 1996, in paragraph 16 of which the Council called for the consolidation of the reports required under the Council's resolutions 699 (1991) of 17 June 1991 and 715 (1991) of 11 October 1991.[1]

3. This report also responds to the request made of the Executive Chairman of the Special Commission, in paragraph 4 of Security Council resolution 1115 (1997) of 21 June 1997, that he include in his consolidated progress reports under resolution 1051 (1996) an annex evaluating Iraq's compliance with paragraphs 2 and 3 of resolution 1115 (1997).

Notes

[1] The Commission's 21 previous reports are contained in documents S/23165, S/23268, S/23801, S/24108 and Corr.1, S/24661, S/24984, S/25620, S/25977, S/26684, S/26910, S/1994/489, S/1994/750, S/1994/1138 and Corr.1, S/1994/1422 and Add.1, S/1995/284, S/1995/494, S/1995/864, S/1995/1038, S/1996/258, S/1996/848 and S/1997/301.

97-26450 (E) 101097



/...

Report of the Secretary-General on the activities of the Special Commission established by the Secretary-General pursuant to paragraph 9 (b) (i) of resolution 687 (1991)

CONTENTS

		Paragraphs	Page
I.	INTRODUCTION	1 - 16	3
II.	STATUS REPORT: DISARMAMENT	17 - 83	5
	A. Proscribed missiles	17 - 43	5
	B. Chemical weapons	44 - 68	10
	C. Biological weapons	69 - 83	16
III.	STATUS REPORT: ONGOING ISSUES	84 - 119	20
	A. Ongoing monitoring and verification	84 - 101	20
	B. Concealment investigations	102 - 119	23
IV.	COMMENTS AND CONCLUSIONS	120 - 152	26

Annexes

I.	Iraq's compliance with paragraphs 2 and 3 of Security Council resolution 1115 (1997)	31
II.	Findings of the international panel of experts on Iraq's full, final and complete disclosure of its proscribed biological weapons programme	37
Appendix.	Inspection schedule in the reporting period from 11 April to 11 October 1997 (in-country dates)	40

I. INTRODUCTION

1. The present report is the fourth report by the Executive Chairman of the Special Commission (UNSCOM) following the adoption of Security Council resolution 1051 (1996) of 27 March 1996. In accordance with that resolution it is a consolidated report addressing all aspects of the Commission's work, under resolutions 687 (1991) of 3 April 1991, 707 (1991) of 15 August 1991, 715 (1991) of 11 October 1991, 1051 (1996) of 27 March 1996, 1060 (1996) of 12 June 1996 and 1115 (1997) of 21 June 1997.

2. This report covers the period from 11 April to 11 October 1997.

3. In section C, paragraph 8, of its resolution 687 (1991), the Security Council decided that Iraq should unconditionally accept the destruction, removal, or rendering harmless, under international supervision, of:

(a) All chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities;

(b) All ballistic missiles with a range greater than 150 kilometres, and related major parts and repair and production facilities.

4. The core of this report addresses these requirements in chapter II, sections A, B, and C. These sections are designed to record the status of Iraq's fulfilment of its obligations, recalled in paragraph 3 above.

5. In addition to describing in detail the status of the process of the elimination of weapons now proscribed to Iraq, this report also addresses the status of the system of ongoing monitoring and verification established under resolutions 687 (1991), 715 (1991) and 1051 (1996).

6. It also deals with Iraq's concealment of proscribed weapons and materials.

7. The main body of this report ends with some comments and conclusions of the Executive Chairman of the Commission.

8. In paragraph 4 of resolution 1115 (1997), the Security Council requests the Executive Chairman of the Special Commission to include in his consolidated progress reports under resolution 1051 (1996) an annex evaluating Iraq's compliance with the obligations set out in paragraphs 2 and 3 of resolution 1115 (1997). In paragraph 2 of that resolution, the Council demands that Iraq cooperate fully with the Commission in accordance with the relevant resolutions of the Council and that the Government of Iraq allow the Commission's inspection teams immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transportation which they wish to inspect in accordance with the mandate of the Special Commission. In paragraph 3 of the resolution, the Council also demands that the Government of Iraq give immediate, unconditional and unrestricted access to officials and other persons under the authority of the Government of Iraq whom the Commission wishes to interview so that the Commission may fully discharge its mandate.

9. Annex I of the present report provides the Executive Chairman's assessment of Iraq's compliance with those obligations. It includes a record of the main instances where difficulties have occurred with respect to the fulfilment of the requirements expressed in paragraphs 2 and 3 of resolution 1115 (1997).

10. Before addressing the core issues referred to in paragraph 4 above, the following developments in the period under review should be noted.

11. On 1 May 1997, the Secretary-General accepted the resignation of Ambassador Rolf Ekéus (Sweden) from the post of Executive Chairman of the Special Commission and appointed Ambassador Richard Butler (Australia) to succeed him, with effect from 1 July 1997.

12. Mr. Butler visited Baghdad from 21 to 25 July, three weeks after assuming the position of Executive Chairman. He held three plenary meetings with the Commission's Iraqi counterparts, led by the Deputy Prime Minister, Mr. Tariq Aziz. As a result of the discussions, a specific additional programme of work was agreed upon, to be undertaken in the weeks immediately ahead:

(a) In the missile area, the work programme included the re-excavation of remnants of missile warheads, launchers and other items to determine whether, in fact, they had been destroyed as Iraq had claimed. It also included the provision, by Iraq, of various declarations concerning the disposition of elements of its proscribed missile force, including warheads and missile support elements;

(b) In the chemical area, the work programme included further efforts to clarify particular issues of concern. It was also agreed that the destruction of certain chemical weapons equipment and key precursors would take place;

(c) In the biological area, it was agreed that Iraq would expedite the provision of a new declaration containing its full, final and complete disclosure (FFCD).

13. A review of the work accomplished under this specific programme of work was carried out during the second visit of the Executive Chairman to Baghdad from 5 to 9 September 1997. In the main, the Executive Chairman expressed satisfaction with the progress that had been achieved since his previous visit. In particular, several issues had been settled in the missile area, thus reducing the number of outstanding questions in that area. A programme of destruction of certain chemical weapons equipment and materials had commenced. As regards future work:

(a) Iraq was asked to provide further information required for the verification of special warheads (those planned to be used for the delivery of chemical and biological weapons), including production and filling records;

(b) Iraq undertook to deliver its declaration containing its FFCD in the biological area within a day or two. The Executive Chairman welcomed this, noting that the declaration was six years overdue. The declaration was delivered to the Commission on 11 September 1997;

(c) The Executive Chairman proposed that the biological weapons FFCD and all others now in the Commission's possession be regarded as final. The Commission would proceed to seek to verify them, in accordance with its mandate. He made it clear that the meaning of his proposal was that the Commission would not further assist Iraq in the formulation of its account of its proscribed biological weapons programme or any other of its proscribed programmes. Those declarations were Iraq's responsibility as set forth in the resolutions of the Security Council. The Deputy Prime Minister said he accepted this approach.

14. Over the last six months, in support of the inspection activities of the Commission and the International Atomic Energy Agency (IAEA), the Chilean helicopter unit has continued to perform resolutely and professionally, in particular when incidents have occurred that have, at times, threatened the safety of helicopter operations. The Government of Chile and its personnel working in Iraq have made an outstanding contribution to the work of the Commission and IAEA.

15. The Commission remains grateful to all States that have continued to provide the Commission with material support and personnel necessary for the conduct of its operations. A notable contribution continues to be the generous provision of premises by Bahrain for the Commission's field offices. Without this contribution, the Commission's flights into and out of Iraq and its inspection preparation and training would be impossible. Bahrain remains a key component in the success of the operations of the Commission and IAEA.

16. The Commission has continued to provide logistical and other operational support for the operations of IAEA in Iraq, to designate sites for inspection and to receive and advise on requests from Iraq to move or use any material or equipment related to Iraq's clandestine nuclear programme. Commission experts participated in technical discussions on the nuclear FFCD held both in May and July 1997, between the IAEA expert teams and Iraqi personnel associated with Iraq's clandestine programme. Multidisciplinary inspections have been conducted and additional missions of this sort are planned in the coming year.

II. STATUS REPORT: DISARMAMENT

A. Proscribed missiles

17. In paragraph 8 of its resolution 687 (1991), the Security Council decided that Iraq should unconditionally accept the destruction, removal or rendering harmless, under international supervision, of, inter alia, all ballistic missiles with a range greater than 150 kilometres and related major parts and repair and production facilities. The Security Council also decided that Iraq should submit, within 15 days, a declaration of the locations, amounts and types of all items specified in paragraph 8.

18. In its resolution 707 (1991), Iraq having failed to provide an adequate declaration, the Security Council demanded that Iraq should provide without delay full, final and complete disclosure (FFCD), as required by resolution 687 (1991), of all aspects of its programmes to develop weapons of mass destruction and ballistic missiles with a range greater than 150 kilometres and

of all holdings of such weapons, their components and production facilities and locations.

19. Iraq's FFCD in the missile area was submitted to the Commission in July 1996, five years after it had been demanded by the Council. The Commission is currently seeking to bring its work on verification of this declaration to a conclusion.

20. The Commission's endeavours in the area of proscribed missiles, from their inception, have always encompassed two main tasks: firstly, the accounting and disposal of proscribed missiles and related operational missile assets (launchers, warheads, propellants, combat support infrastructure); and secondly, other issues related to activities and capabilities proscribed by the Council, including indigenous missile production programmes.

21. It should be recalled that the major part of Iraq's proscribed missile items and capabilities that remained after the Gulf War were destroyed by Iraq, unilaterally and without international supervision. This action, in contravention of Security Council resolution 687 (1991), has considerably complicated the accounting for proscribed items and significantly delayed and frustrated the Commission's verification efforts.

22. With respect to the first task, the July 1997 programme of work put special emphasis on achieving a solid and verifiable material balance in the relevant areas.

Missiles

23. The core of Iraq's proscribed missile force was 819 long-range operational missiles that Iraq imported in the period ending in 1988. As a result of its inspections, investigations and analysis over the past six years, the Commission is now in a position to be able to account for 817 of those 819 missiles. The following table presents the accounting for 817 missiles by category of expenditures or disposal:

Pre-1980 expenditures, such as in training	8
Expenditures during the Iran-Iraq war (1980-1988), including during the War of the Cities in February-April 1988	516
Testing activities for development of Iraq's modifications of imported missiles and other experimental activities (1985-1990)	69
Expenditures during the Gulf War (January-March 1991)	93
Destruction under supervision of UNSCOM (early July 1991)	48
Unilateral destruction by Iraq (mid-July and October 1991)	83

Note. Sources of accounting for each of the missiles vary. In most cases, accounting has been provided through Iraqi documentation. In some cases, multiple sources have provided corroborative accounting. In the case of unilateral destruction, accounting has been provided, for example, by reference to a key numbered component of an engine.

24. During the reporting period, the Commission carried out laboratory analysis of remnants of those missiles which were declared by Iraq as unilaterally destroyed in July and October 1991. As a result, the Commission has identified remnants of engines from 83 out of 85 missiles declared as unilaterally destroyed. The Commission is grateful to the Governments of France, the Russian Federation and the United States of America for providing facilities and other support for this work.

25. As is indicated in paragraph 20 above, the complete accounting of proscribed missile operational assets should also include key elements such as launchers, warheads and propellants.

Launchers

26. In 1991, Iraq declared that, prior to the Gulf War, it had 14 operational mobile missile launchers, including 10 that had been imported. Remnants of the 10 imported launcher chassis, with their launch arms, and remnants of 4 indigenously produced launchers were identified by the Commission through inspection activities in August and September 1997. This work was carried out pursuant to the July 1997 programme of work agreed between the Executive Chairman and the Deputy Prime Minister of Iraq.

27. The Commission's verification efforts with respect to Iraq's declarations on launchers have been frustrated and delayed by Iraq's misleading statements over the past six years. Prior to March 1992, Iraq claimed that several launchers had been destroyed during the Iran-Iraq war. Then, in March 1992, it declared to the Commission that those launchers had, in fact, been unilaterally destroyed by Iraq in the summer of 1991. This statement was repeated in Iraq's July 1996 FFCD. In the course of its verification efforts, the Commission established that Iraq's statement on the unilateral destruction of missile launchers in the summer of 1991 was false. This finding was presented to Iraq by the Commission, during the July 1997 visit of the Executive Chairman. Iraq then made a new statement, in August 1997, that four launcher chassis had in fact been destroyed in October 1991, and not in July 1991, as had previously been declared.

28. Although this experience does not in itself change the material accounting of destroyed launchers, it raises questions over Iraq's reasons for concealing the truth from the Commission. A fuller explanation and understanding of Iraq's actions to retain launchers for a period after the adoption of resolution 687 (1991) and to conceal the events and timing of their unilateral destruction is required.

29. In September 1997, the Commission asked Iraq to explain the operational requirements for the retained proscribed missile assets that Iraq had concealed after April 1991. However, in response, the Deputy Prime Minister gave an explicit order, in the presence of the Executive Chairman, to the Iraqi experts not to discuss such issues with the Commission.

30. Iraq's long-term deception of the Commission on the issue of the events surrounding the unilateral destruction of launchers is of concern. It raises

serious questions as to the purpose of such actions and their relationship to other concealment activities.

Warheads

31. The accounting of proscribed missile warheads has not yet been completed. The August 1997 excavation of missile warheads that Iraq claimed it had unilaterally destroyed produced findings that require further work to enable the Commission to verify relevant Iraqi declarations. In this area, it is essential to recognize that there is a major overlap between proscribed missile activities and chemical/biological weapons activities. During his September 1997 visit to Iraq, the Executive Chairman asked Iraq to undertake specific actions to enable the Commission to verify the accounting for special warheads for missiles. These have not yet been undertaken by Iraq. The Commission is pursuing this matter.

Propellants

32. The accounting for proscribed missile propellants is still outstanding. Documents, including those specifically requested by the Commission, have not been made available by Iraq.

Iraq's indigenous capability

33. With respect to the second task indicated in paragraph 20 above, the identification of other activities and capabilities proscribed by the Council in the missile area, the Commission is pursuing efforts to complete the verification of Iraq's declaration on its capabilities to produce proscribed missile systems indigenously. Iraq has declared that it succeeded in manufacturing missile airframes and warheads, but was unable to achieve an "acceptable" level in the production of operational engines for proscribed liquid-propellant missiles or their guidance and control systems.

34. Over the past several years, the Commission has made considerable progress in identifying the quantities of production equipment, materials and major missile components that had been acquired by Iraq for its proscribed missile programmes.

35. In the area of Iraq's indigenous missile production, a firm and verifiable balance of major components and equipment for manufacturing proscribed liquid-propellant missile engines is of particular importance. Iraq had originally denied any major efforts in this area. In March 1992, Iraq declared that most of the relevant items for engine production had been unilaterally destroyed by Iraq in the summer of 1991. It identified the main site for such destruction as being at Al Alam, near Tikrit.

36. Until August 1995, Iraq concealed the fact that its Project 1728, specifically established for the production of proscribed missile engines, had produced engines and carried out some 20 static and flight tests with these engines.

37. In November 1995, Iraq provided inventory lists as supporting documentation for the destruction of components of engines and the means for their production. According to Iraq, the items on the lists were loaded on 11 vehicles (some 35-ton capacity each) for concealment but were eventually destroyed. Items from nine of these vehicles were declared to have been destroyed at Al Alam. The Commission's verification efforts revealed many inconsistencies in Iraq's declarations related to the events of the unilateral destruction. In August 1997, Iraq provided a new declaration designed to clarify movement and concealment of the items prior to their destruction.

38. In an effort to further the accounting in this area, the Commission carried out an inspection in September 1997 that included excavation activities at Al Alam of remnants of unilaterally destroyed proscribed items. After the excavation was completed and recovered items inventoried, it appeared that the remnants could account for only some 10 to 15 per cent of quantities of major engine components that were declared by Iraq as destroyed at the site. The Commission was able to remove all excavated remnants from the site in a single 12-ton vehicle as opposed to nine truckloads of items that Iraq claimed to have been destroyed and buried at the site. The Commission's assessments of gaps in the material balance were shared with Iraq.

39. In response, after the departure of the inspection team, on 24 September 1997, Iraq declared that the Al Alam site had been secretly excavated by Iraq in April-May 1992 without the Commission's supervision. According to this new declaration, the majority of components had been removed from the site and melted at foundries, in an effort to conceal from the Commission the extent of Iraq's missile engine production accomplishments. This was the first time that Iraq had offered this new, improved, version of concealment activity. Iraq had declared, previously in 1997, that it had conducted a similar covert operation in March-April 1992 to remove remnants of complete engines indigenously produced by Iraq from another site of the unilateral destruction. So far, Iraq has not provided any documentation to support its new declarations that proscribed missile engines and their components had been removed by Iraq from the sites of unilateral destruction and then melted down in order to avoid discovery by the Commission of an undeclared missile engine production programme.

40. Iraq has declared unilateral destruction of most of the components for proscribed missile guidance instruments. In November 1995, Iraq provided an inventory of the components destroyed. The Commission has found this list to be incomplete.

41. At the present time, no verifiable material balance for many critical missile components and materials from Iraq's indigenous missile production programmes can be established. Additionally, Iraq has not provided complete declarations concerning several aspects of its proscribed missile programmes. A full picture in this area is of major significance for effective monitoring of Iraq's current and future dual-use capabilities. It is of particular importance as Iraq is known to have conducted proscribed modification, testing and acquisition activities in the missile area after the adoption of resolution 687 (1991).

Summary

42. During the reporting period, significant progress has been achieved in accounting for proscribed missile hardware. The Commission recognizes the importance of this progress. However, less progress has been accomplished in obtaining supporting evidence, especially for claimed destruction of proscribed weapons and capabilities. Such evidence is essential if the Commission is to be able to report credibly to the Security Council in terms of the Council's proscriptions in the missile area. To achieve this, solid documentary support for its declarations needs to be provided by Iraq. Iraq claims that it is not withholding any documentation on proscribed activities as all relevant documents had been either unilaterally destroyed by Iraq or given to the Commission. Thus, requests, including at the level of the Executive Chairman, for specific documentation have mostly not yielded positive results. For example, one specific and important document, for the existence of which the Commission has evidence, was requested by the Chairman. It has not been provided. The explanation that has been given is that it had recently been destroyed during house-cleaning by a relevant Iraqi official at his private house. Such problems delay progress in verification.

43. The Commission also seeks a full understanding of Iraq's operational considerations that led to the retention of proscribed missile assets after the adoption of resolution 687 (1991). The same is true of concealment measures that were taken by Iraq to protect those assets. Such data are required if the Commission is to be able to render a full and final accounting for Iraq's proscribed missile capability and for its elimination, as required by the Security Council.

B. Chemical weapons

44. In paragraph 8 of its resolution 687 (1991), the Security Council decided that Iraq should unconditionally accept the destruction, removal or rendering harmless, under international supervision, of, inter alia, all chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities. The Council also decided that Iraq should submit, within 15 days, a declaration of the locations, amounts and types of all items specified in paragraph 8 of the resolution.

45. In this latter context, since 1991 Iraq has presented to the Commission three different official declarations containing its purported full, final and complete disclosure (FFCD) in the chemical weapons (CW) area. Since the presentation of its third FFCD, in June 1996, Iraq has also submitted seven sets of attachments, which it states should be considered integral parts of that FFCD.

46. In accordance with the provisions of resolution 687 (1991), the Commission, in the period from 1991 to 1997, has focused its work in the CW area on three main areas:

(a) CW production capabilities;

(b) CW, including stocks of chemical warfare agents, munitions and their components;

(c) Other issues related to the proscribed CW activities, such as VX.

47. At the outset of its work, the Commission realized that Iraq's chemical warfare programme was of enormous scope both in terms of scale and breadth. With respect to the issue of chemical warfare agent production, and based on Iraq's chemical FFCD of June 1996, the following material balance of chemical warfare agents and their precursors procured abroad and produced by Iraq in the period from 1981 to 1990 is presented by the Commission:

	Type of material	Quantity (tons)	Remarks
1.	Precursor chemicals produced and procured	More than 20 000	Some 4,000 tons of declared precursors are not verified owing to the absence of information sought by the Commission from suppliers.
2.	Chemical warfare agents produced	3 850	Whether several hundred tons of additional chemical warfare agents were produced cannot be established owing to the uncertain quantities of precursors (mentioned in 1 above).
3.	Chemical warfare agents consumed in the period from 1981 to 1988	2 870	No documents or information on the consumption of CW has been provided by Iraq to support the declared quantities consumed. Without supporting documents the verification of this part of the material balance is impossible.
4.	Chemical warfare agents destroyed under UNSCOM supervision	690	Declared quantities were verified by the Commission.
5.	Chemical warfare agents discarded during production, or destroyed during aerial bombardment in 1991	290	Iraq has not provided supporting documentation for 130 tons of chemical warfare agents declared to have been discarded or destroyed.

48. In the area of chemical warfare munitions, based on Iraq's FFCD of June 1996, the following material balance of munitions either procured abroad and produced by Iraq, for CW purposes, in the period from 1981 to 1990 is presented by the Commission:

	Type of munitions	Quantity	Remarks
1.	Empty munitions produced and procured	247 263	Some 107,500 empty casings have not been verified owing to the absence of information sought by the Commission from the suppliers.
2.	Munitions filled with chemical warfare agents or components	152 119	Whether several thousand additional munitions were filled with chemical warfare agents cannot be established owing to the uncertain quantities of procured munitions (mentioned in 1 above).
3.	Filled munitions consumed in the period from 1981 to 1988	101 080	No documents or information on the consumption of chemical munitions has been provided by Iraq to support the declared quantities consumed. Without supporting documents the verification of this part of the material balance is impossible.
4.	Filled and empty munitions destroyed unilaterally by Iraq	29 172	Unilateral destruction of 15,620 munitions is not verifiable owing to the destruction methods used by Iraq (melting and demolition).
5.	Filled and empty munitions destroyed under UNSCOM supervision	38 537	Declared quantities were verified by the Commission.
6.	Filled and empty munitions discarded by Iraq or destroyed during aerial bombardment in 1991	78 264	Iraq has not provided supporting documentation for 16,038 discarded chemical munitions.

Note. The margin of error in the accounting presented by Iraq is in the neighbourhood of 200 munitions.

49. It should be recalled that, during the first three years of its activities, the Commission's efforts concentrated on the destruction of CW and their production capabilities. A significant number of CW and related subsystems and components were destroyed under UNSCOM supervision in the period from 1991 to 1994. This includes 38,537 filled and unfilled chemical munitions, 690 tons of chemical warfare agents and more than 3,000 tons of precursor chemicals. Over 100 pieces of remaining production equipment at the Muthanna State Establishment, Iraq's primary CW research, production, filling and storage site, were also destroyed under UNSCOM supervision during the same period. However,

the Commission is still investigating the veracity of the unilateral destruction of CW and chemical warfare agents conducted by Iraq after the Gulf War. Closure of this issue would allow the Commission to have a better accounting of Iraq's CW and chemical warfare agent disposal.

Production

50. With respect to CW production capabilities, the Commission understands that, prior to the Gulf War, Iraq procured more than 1,000 key pieces of production and support equipment for its chemical warfare programme. This equipment was used mainly at Muthanna. This establishment was heavily damaged during the Gulf War. The major part of the equipment present at the site was destroyed.

51. In 1996, the Commission found new evidence of chemical production and analytical equipment and precursor chemicals for CW purposes remaining in Iraq. Many of those items had been exempted from destruction by the Commission in 1995 on the basis of Iraqi declarations as to their past use or intended purpose. Those declarations proved to be false.

52. In the period from August to October 1997, UNSCOM supervised the destruction of 325 pieces of newly identified production equipment, 125 pieces of analytical instruments and 275 tons of precursor chemicals.

53. At the request of the Government of Kuwait, 91 pieces of analytical equipment that had been removed from Kuwait by Iraq were returned to Kuwait by the Commission. The operation was conducted with the full cooperation of the Government of Iraq.

54. Of the 325 pieces of chemical production equipment destroyed by the Commission, in September and October 1997, possession of 120 pieces was only disclosed by Iraq in August 1997. They were removed from the Muthanna State Establishment prior to the arrival of the first inspection team at the facility in 1991. Iraq has recently formally assured the Commission that there are no other pieces of equipment that were removed from Muthanna and not declared to the Commission. The issue of Iraq's evacuation of equipment and materials from Muthanna, and Iraq's plans to relocate its CW capabilities from Muthanna, require further clarification if the Commission is to be able to render a final and credible accounting in this area.

Weapons

55. As the result of its verification efforts, the Commission has obtained, with some degree of confidence, a reasonable understanding of Iraq's CW activities in the period prior to 1988, with the exception of those quantities of chemical warfare agents and munitions which, according to Iraq, had been consumed or unilaterally destroyed. With respect to the latter phase of its chemical warfare programme in 1989 and 1990, instead of providing unilateral disclosure of the full extent of its proscribed CW activities as required by the Council, Iraq has only addressed issues on which the evidence of its inconsistencies has been made clear to it by the Commission.

56. In verifying Iraq's chemical FFCD, the Commission identified some other areas of concern related to Iraq's chemical warfare programme. The most important among them are the accounting for special missile warheads intended for filling with chemical or biological warfare agent, the material balance of 155 mm mustard shells, the extent of the VX programme and the rationale for the acquisition of various types of CW. These areas need to be clarified by Iraq.

57. One element of Iraq's presentation illustrates certain of the Commission's problems. Iraq states that a flight test of an indigenously produced Scud warhead, filled with a chemical agent simulant, was conducted in 1985. It stated that the reason for the test was to determine if it were possible for another country to threaten Iraq by such a means. It claimed to have learned from the test that this was possible. It then claimed further that it did no further work in response to this discovery and did not restart its special warhead development until five years later, in 1990. Iraq claimed that it then designed, developed, produced and began filling special warheads in less than three months. Two such warheads were flight-tested. Apart from finding this narrative unconvincing, the Commission affirms that it is unable to verify it at present.

58. On the issue of the accounting for special warheads for Al Hussein missiles, Iraq now maintains that 80 warheads were produced in total, namely, 50 for chemical, 25 for biological and 5 for trials of CW. Special warheads for the Al Hussein missiles were filled with both chemical and biological agents prior to the Gulf War. Iraq's declarations on the types and quantities of warheads have changed several times during the past six years. Iraq's accounting for these munitions is illustrated in the table below:

Quantities of warheads declared by Iraq in 1991 and destroyed under UNSCOM's supervision	Quantities of warheads declared by Iraq as having been destroyed unilaterally in the summer of 1991	
	Declaration of 1992	Declaration of 1996
30 chemical	45 chemical	20 chemical and 25 biological

59. The Commission has been able to establish that the minimum number of warheads filled with chemical and biological warfare agents was 75, and 5 additional warheads were used for trials. In addition to those special warheads, the Commission has evidence of the probable existence of a number of additional special warheads. The question of how many and which of the declared special warheads were filled with various types of chemical and biological warfare agents may only be able to be answered after the verification of Iraq's biological weapons FFCD presented to the Commission one month ago, seven years after it was demanded by the Security Council.

60. At present, the Commission is only able to verify that 16 warheads were filled with sarin and 34 with chemical warfare binary components. The Commission has confirmed the destruction of 30 chemical warheads under its supervision (16 filled with sarin and 14 with binary components). It is also able to confirm, in part, the unilateral destruction by Iraq of a portion of the 45 other special warheads. It is impossible to confirm the destruction of all of these 45 special warheads because of the absence of data from Iraq. Those data, sought by the Commission, include filling records of agents for the warheads, clarifications of inconsistencies in the destruction documents and the physical retrieval of remnants of special warheads. In September 1997, Iraq was once again requested to provide the documentation required for such verification. No response has been given.

61. In June 1996, Iraq declared some 550 artillery munitions (155 mm) filled with mustard chemical warfare agent to have been destroyed during the Gulf War. However, Iraq has not been able to provide evidence of destroyed munitions. In August 1997, Iraq was asked to clarify the circumstances related to the declared destruction. Those data have not yet been provided.

VX

62. With respect to Iraq's efforts to produce the most toxic chemical nerve agent VX, Iraq procured 750 tons of precursor chemicals for the production of VX and domestically produced a further 55 tons. According to Iraq, 460 tons of these VX precursors were destroyed through aerial bombardment. It also claims that 212 tons were unilaterally destroyed without international supervision. The Commission has been able to verify the destruction of only some 155 tons of these latter 212 tons of precursor chemicals. A further 36 tons were destroyed under supervision by the Commission. The remainder, according to Iraq, was consumed in pre-Gulf War VX production attempts.

63. Iraq declared that its VX project had failed and no large-scale production had ever been carried out. However, after the evaluation of Iraq's documents and the results of analysis of samples from alleged VX production and dump sites, the Commission recently obtained further sufficient evidence that Iraq had indeed succeeded in acquiring VX production capabilities. Given that, prior to 1995, Iraq completely denied the production of VX and attempted to eliminate all traces of such activities in order to conceal them from the Commission, this area clearly requires further verification efforts.

64. During the reporting period, the Commission has conducted eight non-resident CW inspections in Iraq. They were related to the verification of the material balance of chemical munitions, the production of VX, the investigation of Iraq's military infrastructure for dealing with chemical munitions and the identification and destruction of remaining CW equipment and materials. In general, the Iraqi side cooperated with the inspection teams, but significant efforts to conceal information were detected on several occasions. This cooperation did not include the presentation of documents and information requested by the Commission.

Other issues

65. In the period from 1988 to 1990, Iraq carried out several projects on types of chemical warfare munitions of which it has not provided physical evidence. This includes binary artillery munitions and aerial bombs, chemical warheads for short-range missiles, cluster aerial bombs and spray tanks. According to Iraq, prototypes of those munitions were produced in limited quantities and only for trials. Without documents to support Iraq's declarations, the Commission is not able to make an assessment of the extent of the projects and their implementation. The Commission has frequently requested documents from Iraq to support its statements. Such documents have not been provided.

66. Iraq's documents on its CW activities from 1989 to 1990, with the full accounting of CW stocks and the production and research efforts, are essential for verification of the FFCD. Some of these documents have been provided by Iraq but only on a selective basis. The Commission has found indications of the existence of other documents and has asked Iraq to provide them. According to Iraq, these particular documents could not be found. This was Iraq's explanation, for example, for the absence of a September 1988 document from the Muthanna State Establishment on the improvement of Iraq's chemical warfare capabilities and on the retained "know-how" documentation, including CW production manuals and commercial contracts.

Summary

67. The Commission is pleased to record the significant progress made during the reporting period. Additional CW production equipment and analytical instruments have been discovered and destroyed and new elements of Iraq's VX activities and programme have been identified.

68. With respect to future work, even further significant progress towards completing the elimination of Iraq's proscribed chemical warfare programme and activities could be achieved through intensive focus on the warheads issues and the complex issue of VX production and capabilities. As in the other weapons areas, it certainly is the case in the chemical warfare area that such progress will rely, elementally, upon Iraq's willingness to assist the Commission in its work and investigations and to provide factual information the Commission has sought, in particular for the purpose of the verification of those parts of the material balance of Iraq's chemical weapons and their components related to unilateral destruction.

C. Biological weapons

69. In paragraph 8 of its resolution 687 (1991), the Security Council decided that Iraq should unconditionally accept the destruction, removal, or rendering harmless, under international supervision, of, inter alia, all biological weapons (BW) and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities. In its resolution 707 (1991), the Council also required Iraq to submit, without further delay, a declaration containing its FFCD of its proscribed biological warfare programme. Until July 1995, Iraq totally denied it had any offensive biological

warfare programme. Since then, Iraq has presented three versions of FFCDs and four "drafts". The most recent FFCD was presented by Iraq on 11 September 1997. This latest submission followed the Commission's rejection, in April 1997, of the previous FFCD of June 1996.

70. The assessment of the June 1996 FFCD, contained in the Commission's report of 11 October 1996 (see S/1996/848), was that it had serious flaws. In the period since that report, UNSCOM conducted eight inspections in an attempt to investigate critical areas of Iraq's proscribed activities such as warfare agent production and destruction, biological munitions manufacturing, filling and destruction and military involvement in and support to the proscribed programme. Those investigations, along with documents and other evidence available to the Commission, confirmed the assessment that the June 1996 declaration was deeply deficient. As a result, the Commission made it clear to Iraq that this declaration did not provide a basis for credible verification and asked Iraq to provide the Commission with a new declaration that would give a full and accurate account of Iraq's biological warfare programme, as required by the Security Council.

71. The new FFCD, received on 11 September 1997, contains fewer errata and is more coherent in presentation than the June 1996 document. However, with respect to the important issues of warfare agent production, munitions manufacturing and destruction of biological weapons and capabilities, the document contains no significant changes from the June 1996 FFCD.

72. Analysis of the 1997 FFCD makes it clear that Iraq has failed to provide the required additional data and information to facilitate the verification process. This is despite the fact that the Commission has spent considerable time helping Iraq to prepare a declaration that could be verified speedily by the Commission. A series of formats and questions to be completed by Iraq covering critical aspects of the programme were prepared by the Commission and were discussed on several occasions with representatives of Iraq during the reporting period. However, in its September 1997 declaration, Iraq fails to make use of those formats as suggested by the Commission. Instead, the Commission's questions are rephrased in order to avoid having to provide direct answers, or are answered incompletely, or ignored entirely. Further, information from the 1996 FFCD is changed in order to give less precise data. Little of the new information that had already been collected by the Commission's teams since June 1996 has been incorporated into the new document. Where changes are included, they are not supported by documentation or appropriate information to explain the changes. The 1997 FFCD contains no new documentation as supporting evidence.

73. The 1997 FFCD also fails to address key areas concerning Iraq's planning and decision-making related to its BW programmes, its concealment of such programmes and the preservation of BW capabilities after 1991. Virtually all planning is denied but the Commission has evidence that such planning took place. Iraq denies that its military played any but a minor support role in the biological warfare programme. To cover gaps in its declarations related to the production and filling of biological warfare munitions, Iraq was requested to explain the military requirements for such munitions. This was rejected by Iraq. According to Iraq, all biological warfare munitions, agents and documents

related to the proscribed biological warfare activities had been destroyed unilaterally, even though such action, if it occurred, would have been in violation of the directives of the Security Council.

74. Not all imports known to the Commission, including growth media for Iraq's biological warfare programme, have been reported by Iraq. Media unaccounted for is sufficient, in quantity, for the production of over three times more of the amount of biological warfare agent - anthrax - stated by Iraq to have been produced. Additionally, amounts of media declared by Iraq as "lost or unilaterally destroyed" is unsupported by Iraq's own documentation and by interview of Iraq's personnel.

75. Bulk warfare agent production appears to be vastly understated by Iraq. Production accounts are incompatible with resources available in Iraq's biological warfare programme, including growth media and fermenter capacity. Production figures in the 1997 FFCD remain unsupported in 1987, 1988 and 1989. The sole supporting document, for 1990, differs from information contained in the FFCD itself. Experts' calculations of possible agent production quantities, either by equipment capacity or by growth media amounts, far exceed Iraq's stated results. Significant periods when the fermenters were claimed not to be utilized are unexplained, especially for a period after August 1990, when Iraq's BW production facilities were ordered to operate at their maximum capacity. Stated low productivity of readily available equipment has not been adequately explained. The idle times for fermenter utilization and low productivity, which are technically not credible, cast doubt on the elemental credibility of the 1997 FFCD.

76. Declared production of the biological warfare agent aflatoxin is inaccurate and could not have occurred using the process stated by Iraq. In its June 1996 FFCD, Iraq claimed that, in September 1990, it had zero balance on hand, having produced only 410 litres of aflatoxin that were nearly totally consumed by weapons field trials. Careful analysis by the Commission showed that the quantity produced would have been inadequate for the declared number of field trials. Iraq claimed to have produced 1,782 litres of aflatoxin for filling weapons from 1 October to 31 December 1990. Given the facilities, equipment and personnel available, such large production would not have been possible. A new account of aflatoxin production and weaponization is contained in the September 1997 FFCD, but the changes are not adequately explained or supported by documentary evidence. The new account is no more credible than the June 1996 version.

77. Iraq's biological warfare field trials are underreported and inadequately described to allow for proper verification. Documents obtained by the Commission in August 1995 and interview statements of some Iraqi personnel involved in the trials provided details sufficiently different from the accounts given in the FFCD to conclude that there had been undisclosed field trials. The accounts of weapons field trials have a direct impact on the material balance of biological warfare agent production. Contrary to its own previous declarations, Iraq, in its September 1997 FFCD, denied a field trial with six R400 aerial bombs filled with botulinum toxin, simulant B or aflatoxin.

78. Production documents have been provided by Iraq to support R400-type aerial bomb production. However, numbers submitted by Iraq for the unilateral destruction of chemical/biological-warfare R400 bombs are such that it appears that more munitions were destroyed than were produced. This discrepancy casts doubts on the completeness of the production documents provided. Explanations offered thus far have not been convincing. The number and types of munition produced were not supported by interview testimony. No documentation has been provided on Al Hussein long-range missile special warhead production and filling. Interview testimony differs from the multiple Iraqi written accounts. No documents were provided to support the allocation of munitions to biological warfare agent.

79. No documentation has been provided to support the 1997 FFCD in the area of munition filling with biological warfare agents. Interview testimony generally does not support the account as presented in the FFCD. No significant new information was found in the new FFCD beyond that included in the June 1996 FFCD. The 1996 declaration was shown to be incorrect or incomplete during the inspections conducted from September 1996 to March 1997.

80. Iraq's account of the unilateral destruction of all its filled weapons and bulk biological warfare agent in summer 1991 is incompatible with facts known to the Commission. There is an incomplete accountability for equipment and materials that were used in the biological warfare programme. Statements on weapons and agent destruction are generally undocumented and in many cases appear to be inaccurate. The Commission is unable to verify that the unilateral destruction of the BW-filled Al Hussein warheads has taken place.

81. A diary of a military officer was provided by Iraq as evidence of unilateral destruction of 157 bombs of R400 type. Interview testimony supports the assertion that at least some of the bombs were biological agent-filled. Excavation by the Commission of their destruction site has identified up to 25 destroyed R400 bombs, most with a black stripe allegedly indicative of a biological warfare bomb to be filled with either botulinum toxin (BTX) or anthrax spores. Further analysis has revealed evidence of decontaminated BTX in two such bombs recovered relatively intact. What is still unknown is whether all of the R400 bombs were biological agent-filled or some were filled with chemical warfare agents; whether 157 R400 bombs was the total number of such bombs filled with biological warfare agents; and how many such bombs were produced for biological agent filling. Without solid answers to these questions, verification of destruction of all biological agent-filled R400 bombs cannot be made.

82. A note provided by Iraq describes receipt and destruction of Al Hussein special warheads at Al Nibai on 9 July 1991. This note has been subject to many discussions with Iraq during which Iraq has essentially discredited information contained in this document. Interview testimony by Iraq's personnel did not support the official account. Even with the recent changes introduced by Iraq into its FFCD, there is evidence that no activities occurred, as described by Iraq, on that date.

83. The September 1997 FFCD fails to give a remotely credible account of Iraq's biological warfare programme. This opinion has been endorsed by an

international panel of experts to which the Commission submitted the FFCD for evaluation. Because of its importance, the report of the panel is provided in annex II.

III. STATUS REPORT: ONGOING ISSUES

A. Ongoing monitoring and verification

84. The monitoring plan approved under Security Council resolution 715 (1991) calls for ongoing monitoring and verification of Iraq's compliance with its unconditional obligation not to use, retain, possess, develop, construct or otherwise acquire any weapons or related items prohibited under paragraphs 8 and 9 of resolution 687 (1991). Thus, the principal aim of monitoring in all weapons areas prohibited under Security Council resolution 687 (1991) is to ensure that all dual-capable items, materials and facilities present in Iraq are declared and not used for prohibited activities. Dual-capable items, materials and facilities are defined in the annexes to the plans for ongoing monitoring and verification. The annexes were last revised in March 1995, one month before the Commission declared monitoring to be operational.

85. The strategy for monitoring in all weapons areas is implemented through specific measures tailored to each facility containing dual-capable materials or equipment. Those measures are based on an assessment of the relative threat of proscribed activities taking place at a site. The measures, described in detail in earlier reports, include a variety of tools, ranging from no-notice on-site inspections, aerial surveillance, air sampling and real-time camera monitoring. On average, each site subject to monitoring is inspected four times a year.

86. As noted above, the Commission's monitoring system has now been operational for 30 months. The export/import monitoring mechanism became fully operational one year ago. The combined result of these two factors has served to highlight that monitoring all the items and materials defined in the revised annexes to the Commission's plan for ongoing monitoring and verification may, in the future, require much greater resources than are currently devoted to the system. The current situation in Iraq in respect of those items is largely static. Nevertheless, the volume of items subject to monitoring would increase substantially in the event of an easing or lifting of the sanctions regime. The Commission has initiated a review of the annexes to ensure that they remain focused on achieving the aims of monitoring. However, it is fundamentally true that the overall monitoring system could only be made comprehensive when the Council is able to conclude that Iraq's prohibited programmes have been destroyed, removed or rendered harmless and the full extent of the level of technical development achieved in each of the prohibited programmes is known. Only then could the Commission be assured that all relevant dual-capable facilities, equipment and materials able to be used for the purpose of prohibited programmes are covered by the monitoring system.

87. Two other factors, of equal importance, are basic to an effective monitoring system. First is the calibre and number of inspectors. While the Commission is grateful for the inspectors provided, it must be recorded that there continue to be difficulties in obtaining qualified inspectors for some

monitoring groups. This is of concern, in view of the required increase in monitoring activities that would inevitably arise in the event of the easing or lifting of the sanctions regime.

88. The second factor is the degree of cooperation by Iraq. While the Government of Iraq has repeatedly stated, at the highest levels, a willingness to comply fully with the requirements of monitoring, this has not always been reflected, in practice, on the ground. The representatives of the Government of Iraq from the National Monitoring Directorate, as well as Iraqi personnel at inspection sites, have taken a number of actions that have served to undermine the efficacy of the system or to negate the aim of an inspection.

89. During the past six months, such actions have included movement of equipment without due notification; attempts to undermine the rights and privileges of the Commission's inspectors; non-availability of keys to locked rooms; and interference in the inspection process by representatives of the National Monitoring Directorate and Iraqi personnel at the sites. There have been deliberate actions to conceal items and activities after the arrival of inspection teams at sites. In addition, there have also been instances where the National Monitoring Directorate has apparently manipulated information provided to it by sites before presenting it to the Commission. Monitoring groups have discovered a number of undeclared dual-capable items of equipment and discrepancies in Iraq's declarations.

90. While the number of such instances is relatively small, given that the monitoring groups have conducted over 700 inspections during the reporting period, the fact that any occur serves to reduce confidence in Iraq's commitment to the system. Furthermore, such incidents serve to undermine consideration of the concept of resolving outstanding prohibited programme issues through the monitoring system.

Chemical monitoring

91. When chemical monitoring began in October 1994, only a limited number of facilities devoted entirely to chemical processing and production were subject to the monitoring regime. However, during the three years of operation, the system has expanded. This stems from a number of factors: a full implementation of the contents of the annexes, the Commission's increasing knowledge and understanding of Iraq's prohibited chemical warfare programme, the post-Gulf War reorganization and development of Iraq's chemical industry and the increase in UNSCOM technical detection capabilities.

92. The chemical monitoring system currently covers some 160 facilities. There are 323 tagged pieces of equipment, several thousand additional items of equipment under monitoring, as well as thousands of tons of chemicals. During the reporting period, over 170 monitoring inspections were conducted by the chemical group. It was during such inspections that glass equipment imported for the prohibited chemical warfare programme was discovered. The chemical monitoring group has also provided support to 12 visiting inspection teams, as well as overseeing the destruction of precursor chemicals and the return of analytical equipment to Kuwait.

93. In general, the monitoring regime in the chemical area is considered to be an effective instrument, at this time, for identifying any proscribed activities at the sites under monitoring.

Biological monitoring

94. As with chemical monitoring, the number of sites and items of equipment subject to biological monitoring has continued to grow. Full implementation of the biological annexes has shown that the items contained therein amount, in Iraq, to many thousands of pieces of dual-capable equipment and materials. There are some 90 sites subject to regular monitoring and 893 items of tagged equipment. The biological monitoring group has undertaken some 240 inspections in the reporting period. The group has experienced a number of problems in conducting such inspections, including concealment of items and the types of problems cited in paragraph 89 above.

95. The semi-annual declaration submitted on 15 July 1997 was still presented in the previous formats, although at Iraq's request, "revised formats" were provided in December 1995; to date these have not been used. The content was not improved over earlier submissions. Uncorrected problems repeated in the past remained extant and declarable equipment remained undeclared.

Missile monitoring

96. The missile monitoring group conducted over 160 inspections during the reporting period. There are 143 items of tagged equipment and more than 2,000 missile systems tagged for periodic verification that they have not been modified to proscribed ranges. There are 63 sites subject to regular monitoring. The number of items subject to monitoring and the number of sites has remained largely static in the missile area. However, in order to track Iraq's production of non-proscribed missiles more effectively, in May 1997, the Commission established the requirement for Iraq to provide monthly declarations on missile component production. Initially those declarations did not meet the required standards but it is hoped that the problems will be corrected as Iraq gains experience in providing such declarations.

Export/import monitoring mechanism

97. The export/import monitoring mechanism for Iraq, jointly administered by the Commission and IAEA, has now been operational for Iraq for 18 months and for all other States for one year. To date, the joint unit has received notification of some 75 transactions involving the intended export to Iraq of items identified as being subject to monitoring in the annexes to the plans for ongoing monitoring and verification. During the reporting period the export/import monitoring group in Baghdad has conducted some 130 inspections at sites inside Iraq, including points of entry.

98. The implementation of the export/import monitoring system continues to be of value for testing the system in practice and for the purpose of reinforcing the awareness of Governments of suppliers of notifiable items of their obligations under the system. The volume of potential and actual transactions of notifiable items being exported to Iraq has already increased, as a result of

the continued implementation of Security Council resolution 986 (1995). The export/import monitoring system is being kept under constant review in order to determine what steps, if any, may be necessary in order to enhance its effectiveness, in particular with regard to the items subject to notification.

Aerial inspection team

99. The aerial inspection team has conducted some 950 missions to date. During the reporting period the team was subjected to a number of incidents caused by Iraqi personnel present in the helicopters and reported elsewhere in this report. There have also been persistent attempts to prevent the team from conducting effective no-notice inspections. Were these attempts successful, they would negate the effectiveness of aerial inspection activities.

High-altitude surveillance

100. The Commission's high-altitude surveillance aircraft (U-2) has conducted some 380 missions to date.

Communications and information systems

101. The remote monitoring system continues to provide electronic on-site monitoring at sites throughout Iraq. The system has recently been enhanced with the installation of three multi-system optical review equipment work stations at the Baghdad Monitoring and Verification Centre. These work stations allow inspectors to review and analyse the remote monitoring system video tapes more comprehensively and efficiently than the current methods in use.

B. Concealment investigations

102. The Commission has continued its efforts to understand the full extent and status of Iraq's activities directed towards the retention of proscribed materials and capabilities, after the adoption of resolution 687 (1991). It has obtained a greater understanding of the actions taken by Iraq to retain such capabilities and thus to seek to deceive the Commission regarding the disposition of weapons. However, considerable uncertainty remains concerning the retention by Iraq of prohibited material and the continued existence of concealment systems.

103. Much of the Commission's efforts during recent months have been directed towards the early actions taken by Iraq to retain prohibited weapons. In a period of several months after the adoption of resolution 687 (1991), some weapons and material were presented to the Commission by Iraq. Decisions and attendant actions were also taken, at that time, to retain and conceal other proscribed weapons and materials. The Commission and IAEA have investigated this period intensively in order to establish what organizations, acting under what authorities, were involved.

104. In the context of its concealment investigations, the Commission has two fundamental purposes. The first is to determine if all of the proscribed items that were retained have subsequently been revealed or discovered. The second is

to ascertain whether the concealment mechanism that was used, at that time, is still functioning. This latter point bears not only on intrinsic accounting for prohibited weapons and items in Iraq's possession, but also on the ongoing monitoring activities of the Commission.

105. The Commission has established several facts concerning the early decisions by Iraq to withhold certain proscribed weapons and capabilities.

106. For example, it is established that Iraq decided, in April 1991, to divide its missile force into two parts. It would present one part to the Commission for destruction and illegally retain the second part. Iraq claims it subsequently decided to destroy the retained missile force, unilaterally. It was claimed that this unilateral destruction took place in July 1991. The Commission has recently been informed by Iraq, however, that some prohibited weapons and materials were still withheld, even after this unilateral destruction, until October 1991. The Commission has conducted several missions with the objective of determining the full picture of these decisions and actions to include who made the decisions, for what rationale, who was involved in the concealment and when and where subsequent destruction decisions were taken. This information is needed in order to be able to verify fully the facts with respect to Iraq's proscribed missile capability.

107. Iraq has attributed virtually all of its concealment actions, prior to August 1995, to the late Lt.-Gen. Hussein Kamel, although not exclusively, since the Deputy Prime Minister has acknowledged that it was his decision to deny the existence of the offensive biological weapons programme and to reveal it to the Commission only in July 1995, that is, shortly before Hussein Kamel left Iraq.

108. A combination of interview missions and site inspections have been undertaken to attempt to determine the full extent of the concealment actions and policy, as well as its continued existence. These actions have often involved attempts to visit sites that Iraq then declares sensitive, since the persons, sites and organizations are all then stated to be involved in important security matters for the Government of Iraq.

109. During the reporting period, the Commission has conducted three missions as part of its investigations of concealment activities.

110. In June 1997, a series of sites were inspected that were related to organizations that have been directly connected in various ways to concealment actions and/or covert procurement activities. The sites included those belonging to the Special Security Organization, the Iraqi Intelligence Service and the Special Republican Guard. The Commission has established that links exist between those organizations and Iraq's concealment efforts through the involvement of their individuals and vehicles in concealment actions as well as direct support to known prohibited procurement actions. Iraq has now acknowledged such involvement in the past.

111. It is vital to the Commission's work directed at establishing the full extent of these activities to have access to relevant documents and to conduct interviews.

112. In the period under review, the Commission has encountered a pattern of Iraqi blockages and evidence of removal and/or destruction of documents and material at "sensitive sites" under inspection. During the inspections of June, September and October 1997, multiple delays and violations of the modalities for the inspection of sensitive sites were experienced. The events of June and the first half of September have already been reported to the Security Council. Ultimately, Iraq prohibited access to a number of sites the Commission sought to inspect, some of them on the ground that the sites were "Presidential/ residential" sites and therefore out of bounds to the Commission's inspectors.

113. A further inspection to determine the interactions and roles of individuals and the decision chain for early concealment decisions in 1991 was conducted during September 1997. Interviews were conducted in a constructive atmosphere. Iraq declined to provide one individual requested for an interview because of his seniority (a minister).

114. Despite the willingness on the part of Iraq to allow the team to interview other senior personalities from the Special Republican Guard, the Iraqi Intelligence Service and the Surface-to-Surface Missile Force, the substance of the data obtained during the course of those interviews was fragmentary and often contradictory. Furthermore, although Iraq admitted for the first time, after some 15 months of denial, the participation of elements of the Special Republican Guard and the Iraqi Intelligence Service in the safeguarding of retained proscribed material and the covert procurement of proscribed material, respectively, the information provided to date is far from complete. For example, when the Commission found Iraq importing long-range ballistic missile gyroscopes in 1995, it investigated the process used to set up the imports. It involved an individual strongly suspected with connections to the Iraqi intelligence services. The Commission has been seeking to gain a full understanding of the continuing role of the Iraqi Intelligence Service in proscribed procurement. The Commission has had limited success but is aware of the use of front companies and individuals on a contract basis. Obviously Iraq and others consider this sensitive and hence the Commission's access to sites containing such information has been problematic.

115. This unwillingness on the part of Iraq to provide the full details of its past efforts to obscure retained proscribed material and equipment from the Commission, as well as to expose fully the scope and organizational involvement of its covert procurement efforts in support of proscribed programmes, reinforces concern about the continued existence of concealment systems in Iraq.

116. In addition to inspections directed specifically at concealment activities, other Commission inspection teams continued to uncover efforts to conceal information or materials. From 10 to 20 September 1997, a joint chemical and biological team inspected a number of military sites suspected of having involvement in proscribed activities. On three different occasions at three different sites, inspection team members recorded evidence of the removal or movement of documents and records and the destruction of documents. These events occurred inside so-called sensitive sites while the team was waiting to be allowed to enter. Because of the very nature of the actions taken by Iraq at these sites, the Commission cannot know the nature of the hidden and destroyed materials.

117. During the last week of September 1997, another inspection of sites in Iraq with links to concealment activities was conducted. This inspection focused on sites that have been associated with ongoing activity in a concealment system in Iraq operating for the purpose of continuing to deny the Commission access to information and documentation pertaining to past proscribed material and equipment, as well as the equipment and material itself. Relevant sites associated with the Special Republican Guard, the Special Security Organization, the Iraqi Intelligence Service and Military Intelligence were inspected. When access was obtained, these inspections produced very limited information. For example, on 29 September 1997, UNSCOM 207 inspected the M4 Directorate for clandestine operations of the Iraqi Intelligence Service. Access to the site had been denied in June 1997. In September, the Director was available to answer the questions of the Chief Inspector. He stated flatly that the organization had nothing to do with proscribed procurement. He stated it only conducted research and analysis. The Commission has contrary information and will continue this investigation.

118. Clearly, the investigation of Iraq's concealment activities has been very difficult and very sensitive. Such investigation places the Commission at the intersection of legitimate security functions in Iraq and the most important responsibility of the Commission - to assure the Security Council that prohibited activities are no longer continuing.

119. The Commission is compelled to continue these investigations both because of the continued existence of gaps in accounting for Iraq's proscribed programmes and its history of active deception with respect to those programmes. The Commission strongly believes that relevant materials and documents remain in Iraq and that there have been highly coordinated actions designed to mislead the Commission. Such actions continue to prevent the Commission from obtaining a full and verifiable picture of Iraq's holdings of, and programmes for, proscribed weapons of mass destruction. The Commission carefully makes the point that, on the basis of evidence available to it, were it to have full access to all relevant sites and persons in Iraq, it is highly likely that proscribed items would be discovered. Iraq's actions to impede or block the Commission's concealment investigations tend to affirm this view.

IV. COMMENTS AND CONCLUSIONS

120. This report has been prepared under particular circumstances. Chief amongst these were the events of June 1997, which led the Security Council to adopt resolution 1115 (1997), and the change in the leadership of the Special Commission, in July 1997. It is appropriate then to offer the Council some comment on this report and some suggested conclusions with respect to future action.

121. This portion of the present report will deal, firstly, with the main issues of substance and, secondly, with important methodological issues.

Issues of substance

122. Three weapons areas are at issue - missiles, chemical weapons and biological weapons.

Missiles

123. Significant progress has been achieved in the missile area. The Commission is now in a position to be able to account for practically all, except two, imported combat missiles that were once the core of Iraq's proscribed missile force. The Commission has also accounted for all declared operational missile launchers, both imported and indigenously produced. To achieve the ultimate objective of full disposal of Iraq's proscribed operational missile assets, the next important step is to account for proscribed missile warheads. This is of particular importance as the issue overlaps the chemical and biological weapons areas. Once this is accomplished, the Commission's ability to report to the Security Council with confidence that Iraq does not possess a proscribed missile force would greatly increase. Remaining issues, such as accounting for missile propellants, would not be insurmountable if Iraq would cooperate with the Commission and provide the evidence required to complete the process of verification. More work is still required to achieve the same results in the area of Iraq's indigenous production of proscribed missile systems.

Chemical weapons

124. Important progress has been made in this area, of which the recently completed destruction of chemical weapons-related equipment and materials is an example. However, the ability of the Commission to report positively on disarmament of this category of weapons of mass destruction will require the provision by Iraq of much more and accurate material and related access by the Commission relevant to the warheads and VX questions.

Biological weapons

125. This is an area that is unredeemed by progress or any approximation of the known facts of Iraq's programme. The Executive Chairman and UNSCOM experts have made clear repeatedly to their Iraqi counterparts their deep concern about this area, both intrinsically and in terms of its impact upon the overall estimation of Iraq's willingness to abide by the decisions of the Security Council.

126. There is incomprehension of why Iraq is persisting so strongly with both refusing to make the facts known about its biological weapons programme and why it is so insistent on blocking the Commission's own efforts to reach those facts.

127. This perspective on Iraq's biological weapons programme is not the Commission's alone. As is indicated in this report, independent international experts have the same view.

Methods of work

128. In addition to issues of substance, there are important issues of methodology, which, because they impact upon substantive outcomes, must be addressed.

129. In the Executive Chairman's opening statement during his first visit to Baghdad, in July 1997, he called attention to time - how much time had been spent on the process of eliminating Iraq's weapons of mass destruction; how that period of time had greatly exceeded what the Security Council had intended originally; how urgent it was to get the job done. Those perspectives are reiterated, now.

130. As the new format of this report reflects, the mandate of UNSCOM, given by the Security Council, has two elemental parts: to deal with the past through disarmament and the future through monitoring and verification.

131. The disarmament process established by the Council involves three steps: declaration and full revelation by Iraq of its capacities and programmes of weapons of mass destruction; verification of those actions by the Commission; and destruction, rendering harmless or removal of the prohibited weapons and programmes, under international supervision.

132. It is self-evident that this process is intended to be a specific sequence of steps, in which the fulfilment of each relies on the fulfilment of the preceding step. It is a process that begins at the beginning, ending at its logical end.

133. Thus, the first step - full disclosure by Iraq - is the fundamental one, the step on which most, if not all, of the process crucially depends.

134. Specifically, when Iraq's declarations are timely and accurate, the Commission's work on the second stage of this three-stage disarmament process would largely take the form of verification. The Executive Chairman promised Iraq that the Commission would carry out that work scientifically, objectively and with dispatch.

135. To the extent that Iraq's declarations were late and/or incomplete the Commission would be driven, increasingly, to conduct its own forensic work aimed at discovering the truth of any relevant matter in order to then be able to enter into the second stage, the process of verification.

136. Iraq has often objected to and in many cases sought to prevent such forensic work. In response, the obvious point should be taken - the extent to which such work is necessary is almost entirely in Iraq's hands.

137. As indicated repeatedly in the present report, Iraq's record on such disclosure has been deficient, to say the least. In 1991, almost seven years ago, the Council required Iraq to make its disclosures within 15 days. In some respects, this process is still continuing, although as is noted in this report, the Executive Chairman attempted last month to bring this to a halt. This action was designed to put an end to the Commission being asked to assist Iraq

in the formulation of various versions of past events and, it is hoped, shift the focus of work to the verification stage.

138. With respect to the process of verification and related investigation, the Commission's main method of work is inspection of sites within Iraq. This introduces the question of the rules and principles the Council established and acknowledged under which inspections should be conducted.

139. Those rules and principles give expression to a central requirement - that the Commission should have complete, unimpeded access to any relevant site or person in Iraq.

140. Aspects of the practical application of those rules and principles were addressed in the statement of modalities for the inspection of sensitive sites issued by the Executive Chairman in June 1996. A factor that motivated that statement was the need to pay respect to Iraq's legitimate national security concerns. It is important to note that the statement contains a provision for the review of the practical application and effectiveness of the modalities.

141. As is known to the Council, and of most serious concern to the Commission, Iraq has increasingly failed to apply or behave in conformity with the modalities and in more recent times has sought both to exclude them altogether with respect to certain sites and to define new categories of often very large sites from which the Commission inspectors would be forbidden.

142. The Executive Chairman has called those facts to the attention of the Deputy Prime Minister of Iraq and indicated that he would also call them to the attention of the Security Council. At issue is the Commission's concern that the rights of access by the Commission, established by the Security Council, are being reduced.

143. In its verification process, the Commission has resorted, in some cases, to technical analyses of proscribed material conducted outside Iraq. The laboratory analyses of the missile remnants, conducted in France, the Russian Federation and the United States during 1997, constituted a good example of the fact that, when Iraq allows the Commission to carry out such technical evaluation, positive results can be achieved. This approach could also produce positive results if applied to other issues requiring clarification.

Monitoring

144. With respect to the second part of the Commission's mandate - monitoring and verification - as is indicated in this report, relevant systems have already been established and in a significant number of instances are working effectively.

145. As the disarmament process proceeds and, it is to be hoped, approaches its end, the need for and scale of long-term monitoring mechanisms will increase. The Council must begin to give further attention to this work, including its resource implications. It will be a detailed process, especially if, as may prove to be the case, the Council decides that certain residual aspects of the

disarmament process may be able to be dealt with by moving them into the realm of long-term monitoring.

146. The issue of access is vital to the ultimate success of the Commission in being able to achieve its tasks, as set out in the Security Council's resolutions. This is also relevant for the effectiveness of long-term monitoring. The Commission cannot monitor sites from which it is denied access. Also, sites differ qualitatively. It must have access to those which count. Any precedents set now by Iraq that limit access for the Commission's inspections will considerably limit the Commission's ability and credibility in long-term monitoring.

Conclusions

147. It should be recognized that UNSCOM has registered significant achievements in the disarmament field and is well launched in the field of monitoring. The quality of these achievements can be seen to be even greater when placed in the context of the obstacles UNSCOM has faced.

148. The present report registers the progress that has been made in a number of important fields and the Executive Chairman hopes this will be recognized by the Council and perhaps more particularly by Iraq. The instances of cooperation that have been brought about by, for example, serious application to the aims of the July 1997 programme of work have borne fruit. The Commission hopes that this will further encourage such cooperation.

149. Annex I to this report, furnished at the request of the Security Council, provides a statement about Iraq's cooperation with UNSCOM and its compliance during the recent period with the decisions of the Security Council.

150. It is clear that the record has been mixed. There has been important progress, but also, clearly, there have been continuing difficulties.

151. The Commission is convinced of the need for the Council to insist that Iraq meet its obligation to disclose fully all of its prohibited weapons and associated programmes. There is no substitute for this whole truth, both as such and as the mainstay of the effective discharge by the Commission of its mandate. This is a crucial requirement.

152. The Commission is also convinced that it is essential that the Security Council reaffirm and demand Iraq's complete cooperation with the exercise by the Commission of its rights to full access to sites and persons at which and through which the Commission may be able to verify Iraq's compliance with the relevant decisions of the Council and report accordingly under paragraph 22 of resolution 687 (1991).

Annex I

Iraq's compliance with paragraphs 2 and 3 of Security Council resolution 1115 (1997)

1. In paragraph 4 of its resolution 1115 (1997) of 21 June 1997, the Security Council requests the Chairman of the Special Commission (UNSCOM) to include in his consolidated progress reports under resolution 1051 (1996) an annex evaluating Iraq's compliance with paragraphs 2 and 3 of the resolution.

2. In paragraph 2 of the resolution the Council demands that Iraq cooperate fully with the Special Commission in accordance with the relevant resolutions, and that the Government of Iraq allow the Special Commission inspection teams immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transport that they wish to inspect in accordance with the mandate of the Commission. These demands are not new. The provision on access is a fundamental one deriving from resolution 687 (1991) and is expressed in identical terms in resolution 707 (1991) and subsequent Council resolutions and statements.

3. In paragraph 3 of resolution 1115 (1997), the Council demands that the Government of Iraq give immediate, unconditional and unrestricted access to officials and other persons under the authority of the Government of Iraq whom the Special Commission wishes to interview, so that the Commission may fully discharge its mandate. This paragraph of the resolution responded to the considerable difficulties the Commission had encountered in being granted access to persons, in particular those whose statements and/or recollections the Commission believes would be of relevance to its investigations and to the verification of Iraq's full, final and complete disclosures.

4. In the paragraphs that follow, an account is given of events bearing on the implementation by Iraq of the foregoing obligations both prior to and after the adoption of resolution 1115 (1997). There have been three occasions prior to, and three after, the adoption of the resolution where access to sites designated for inspection by the Commission has been denied by Iraq. With respect to interviews, prior to the adoption of the resolution, there were instances where nearly all persons requested for interviews were not provided. After the adoption of the resolution, the situation improved. There was one case where Iraq refused to make a particular individual available. In other cases, persons requested for interview were provided, although not always on a timely basis. This time factor is not merely a question of fastidiousness on the part of the Commission. Rather, it is a matter of substance. Delay can have a bearing on the credibility of the interview.

Events prior to the adoption of resolution 1115 (1997)

5. During the conduct of an inspection in June 1997 (UNSCOM 194), a series of incidents occurred in which Iraqi personnel on board the Commission's helicopters engaged in actions that obstructed the Commission's inspections and endangered both the security of the helicopters and the safety of the persons on

board. The four incidents, on 4, 5 and 7 June, were the subject of correspondence between the Commission and Iraq.

6. These issues were addressed by the Security Council on 11 June 1997, with the Executive Chairman providing a briefing. As a result, on 13 June, the President of the Council made a statement (S/PRST/1997/33) on behalf of the Council, which, inter alia, expressed its serious concern, deplored the incidents and underlined that Iraq must immediately take steps to put an end to all such actions. The statement also reminded Iraq of its obligations to ensure the security of the Commission's personnel and to permit the Commission to carry out its air operations anywhere in Iraq without interference of any kind.

7. Concurrently, on 10 June, during the last few days of UNSCOM 194, Iraq denied the Commission's inspection team access to a site designated for inspection. This was followed, on 12 June, by Iraq's refusal to provide access to two further sites designated for inspection. The Commission's inspectors informed their Iraqi counterparts that their actions were in violation of the Council's resolutions. Iraqi officials stated in response that Iraq's actions were being carried out on instructions from the highest authority.

8. In addition to denial of access, Iraq's authorities refused to provide access to individuals sought for interview by the Commission's inspectors. Prior to the arrival in Iraq of the inspection team, the Executive Chairman had written to the Iraqi authorities presenting the names of those individuals sought for interview because of their involvement in proscribed activities. This was also followed up by further requests for personnel for interview made by the Chief Inspector of UNSCOM 194 on his arrival in Iraq. Of the 18 people requested for interview, Iraq provided access to only one. Iraq stated that the other persons sought had not been engaged in activities of relevance to the Commission. The Commission has clear evidence to the contrary.

9. On 18 June, the Executive Chairman again briefed the Council on the situation with respect to denials of access to sites and refusals to provide persons for interviews. On 21 June, the Council unanimously adopted resolution 1115 (1997).

10. These events, prior to the adoption of resolution 1115 (1997), are recorded because they are the relevant background to the reporting requirement in response to which the present annex is submitted.

Events after the adoption of resolution 1115 (1997)

11. On 13 September 1997, during the conduct of an inspection connected with the investigation of Iraq's chemical and biological weapons programmes, a combined inspection team (UNSCOM 199/203) was subjected to incidents that seriously undermined the credibility of the team's inspection and endangered the integrity and safety of one of its helicopters and its crew. During the incidents, one of the Commission's personnel was manhandled on board the Commission's helicopter while he was attempting to take photographs of the unauthorized movement of Iraqi vehicles inside a site that was designated for inspection. Iraq again violated the modalities for the inspection of sites declared sensitive by Iraq in that it did not freeze movement inside the site

following the arrival of the inspection team and the declaration of the site as sensitive. The limited-entry team of four inspectors further reported evidence that documents had been moved in or removed from the inspection site, also in violation of the modalities.

12. Those incidents and a further incident of a similar nature, on 15 September, during which Iraq again failed to freeze movement inside the site for inspection, were the subject of a protest expressed in a letter from the Executive Chairman to the Deputy Prime Minister of Iraq on 16 September. The Executive Chairman stated that Iraq's behaviour was contrary to the Commission's rights and established procedures for inspections, including those for sensitive sites. Apart from raising serious concerns about the commitment of the Government of Iraq to ensure the safety of UNSCOM personnel, these incidents raised fundamental questions about the way in which the modalities for inspection of sensitive sites were being applied by Iraq. In his letter, the Executive Chairman noted that the Commission had been working scrupulously within the terms of the inspection modalities at sites declared by Iraq to be sensitive. He added that, as on a number of previous occasions, the events of 13 and 15 September indicated that Iraq had not.

13. The Executive Chairman, in accordance with the Commission's rights, instructed that the two Iraqi personnel who had been aboard the helicopter on 13 September be forbidden from flying again on UNSCOM aircraft.

14. The Executive Chairman's letter was sent for information to the President of the Security Council. The President then decided that the Executive Chairman should brief the Council on the incidents during its informal consultations on 17 September.

15. On the same date, the Deputy Prime Minister of Iraq responded to the Executive Chairman's letter. He stressed that the incidents, which he characterized as small, had not been intended and that the Iraqi side was keen to adhere to the modalities for inspections. He had issued instructions that the modalities should be followed and hoped that such cases would not reoccur. He also stated that the two Iraqi officers concerned in the flight incident would not take part in further flight missions with the Commission. In addition, prior to the informal consultations of the Council on 17 September, the Permanent Representative of Iraq to the United Nations, during a call on the President of the Council, characterized the incidents as being regrettable and based on logistical problems.

16. At the conclusion of the informal consultations in the Council, the President was authorized by the Council to make a statement to the media. The President stated, inter alia, that the members of the Council viewed Iraq's failure to cooperate with UNSCOM and to apply the procedures previously agreed to by Iraq in the gravest terms. They expressed their full support for the Executive Chairman and the Commission and reiterated their call on the Government of Iraq to cooperate fully with the Commission, as specified in resolution 1115 (1997) and previous resolutions.

17. Concurrently with these events, also on 17 September, the combined inspection team (UNSCOM 199/203) sought to inspect a site in central Baghdad.

Iraq declared the site sensitive and the team was delayed from entering the facility for 50 minutes while awaiting the arrival of a high-level Iraqi representative. During this delay inspectors witnessed and videotaped the movement of files, the burning of documents and dumping of ash-filled waste cans into a nearby river. The movement and destruction of these materials not only violated the modalities for inspection of sensitive sites but also invalidated the inspection itself.

18. On 27 and 29 September and 1 October, Commission inspection teams (UNSCOM 207) were prevented from inspecting three sites designated for inspection. In all cases, the teams were blocked en route to the sites in question by the Iraqi authorities on the basis that the Commission was endeavouring to reach and to inspect "Presidential/residential" sites, which they claimed were out of bounds to the Commission's inspectors.

19. Despite the Chief Inspector's offer to apply the modalities for the inspection of sensitive sites in order to proceed with the inspections and telephone calls between the Executive Chairman and the Deputy Prime Minister to resolve the issue, the inspection teams were not permitted to proceed. It proved necessary to terminate all three inspections as the prolonged delay had already seriously compromised the credibility of any inspection of the sites that might have taken place.

20. These incidents, and taking into account those which occurred earlier in the reporting period, have given rise to an increasing concern that Iraq is only complying with the modalities for inspection of sensitive sites on a selective basis, despite the Commission's scrupulous adherence to those modalities whenever Iraq has declared the site of inspection to be sensitive.

21. On 1 October, the Executive Chairman addressed a letter to the Deputy Prime Minister of Iraq to protest Iraq's decisions to deny access to the three sites in question. In that letter, he indicated that the Commission had the right under Security Council decisions to inspect any site it designated for inspection in Iraq and the Commission could not accept that there existed a class of "Presidential/residential" or "sensitive-sensitive" sites that were out of bounds to the Commission's inspectors. Given Iraq's recent performance, it was the Executive Chairman's intention to raise these access issues in his forthcoming report to the Council.

22. In response, the Deputy Prime Minister of Iraq has advised the Executive Chairman that he is prepared, with the Executive Chairman, to "study the situation in a comprehensive manner and arrive at solutions that achieve a balance between the requirements of the Special Commission and the necessity of respecting Iraq's sovereignty, security and dignity".

23. On 29 September, the Commission's Chief Aerial Inspector and a helicopter crew were not allowed to leave the Rasheed airbase, to which they had returned following their day's mission in support of a ground inspection. This detention was said to have been ordered on the grounds that they had taken photographs of sensitive sites during their mission. While this issue was ultimately resolved as the result of a telephone conversation between the Executive Chairman and the Deputy Prime Minister, Iraq's actions clearly violated the right of the

Commission's personnel to move freely within Iraq. This incident was also mentioned in the Executive Chairman's letter to the Deputy Prime Minister of 1 October.

24. Apart from the main instances of difficulties recorded above, there have been occasions where Iraq's actions have included delay in granting access to designated inspection sites, concealment and destruction of documents, failure to abide by the requirements of sensitive site inspection modalities, efforts to conceal ongoing activities at sites under monitoring by the Commission and delays in the provision of Iraqi counterparts. Those events have not been specific to a single inspection team, site, type of site, investigation or time-frame. While they have occurred in a wide range of contexts, those events have each either invalidated the site inspection or have cast serious doubt on the veracity of Iraqi declarations about the issues and sites in question.

25. In addition to the events described above, the Commission's attempts to verify Iraq's declarations have been hampered by Iraq's failure to provide corroborative documentation and data sought by the Commission.

26. During the Executive Chairman's visits to Baghdad, he raised with the Deputy Prime Minister the rights of the Commission to operate its aircraft throughout Iraq and to land at airfields of its choice during the conduct of its mandate. In particular, he proposed that, in order to obviate the lengthy journey from Habbaniyah airbase to Baghdad, both upon the arrival and departure of inspection teams, the Commission should land its fixed-wing aircraft at Rasheed airbase. The Commission's helicopters are stationed at this airbase, which is much closer to the Commission's Baghdad Monitoring and Verification Centre. This proposal was rejected by the Deputy Prime Minister. He stated that once he was able to fly from Rasheed to Amman, the Commission would be permitted to use Rasheed for its fixed-wing aircraft.

27. During his September visit to Baghdad, the Executive Chairman also indicated that IAEA wished to fly the Commission's fixed-wing aircraft to Basrah International Airport to enable it to conduct an inspection in that area. Again this proposal was rejected, the Deputy Prime Minister stating that the Basrah airport was closed because of the imposition of the "illegal no-fly zone".

28. These two unilaterally imposed limitations upon Commission and IAEA air operations are in direct violation of Security Council resolutions and decisions. They reduced the efficiency and effectiveness of the work of the Commission and IAEA.

29. The Commission's plan for ongoing monitoring and verification requires Iraq to adopt the necessary measures to implement its obligations under section C of resolution 687 (1991), resolution 707 (1991) and the plan, in particular:

(a) To prohibit all natural and legal persons under Iraq's jurisdiction or control from undertaking anywhere any activity that is prohibited for Iraq by resolutions 687 (1991) and 707 (1991), by other related Security Council resolutions or by the plan;

(b) To enact penal legislation, which, in conformity with international law, shall extend to the activities referred to under subparagraph (a) above undertaken anywhere by any natural or legal persons under Iraq's jurisdiction or control.

30. The plan also requires Iraq to inform the Special Commission of the legislative and administrative measures taken to implement the Council resolutions and the plan not later than 30 days after the approval of the plan by the Security Council, and thereafter as determined by the Commission. The IAEA plan contains similar provisions.

31. Despite the Executive Chairman raising the issue frequently with the Iraqi authorities, in particular the Deputy Prime Minister, Iraq has so far failed to introduce the legislation and other measures necessary to give effect to the requirements indicated in paragraph 29 (a) and (b) above. By not adopting the necessary measures and legislation, Iraq is failing to carry out one of the actions necessary if the Council is to act under paragraph 22 of resolution 687 (1991). The measures required of Iraq mirror those required of States parties to the Chemical Weapons Convention from which the language in the plan is taken. They are not, therefore, highly unusual, although, in the case of Iraq, they extend beyond the chemical area to the biological, nuclear and missile areas.

32. The foregoing events need to be evaluated in the context of the reporting period from 11 April to 11 October 1997, during which the Commission has conducted over 170 site inspections by visiting teams and over 700 site inspections by resident monitoring teams.

33. To be fair it is necessary to record that, during this period, and placed in the overall context of the Commission's work, the majority of these inspections were conducted in Iraq without let or hindrance. Progress has also been recorded in the substantive areas of the Commission's mandate, in particular with respect to accounting for Iraq's proscribed long-range missiles and the destruction of chemical weapons-related equipment and materials.

34. The Executive Chairman also records that the atmosphere in which consultations with the Government of Iraq have been conducted has improved and a number of problems have been able to be resolved through direct contacts between the Executive Chairman and the Deputy Prime Minister of Iraq. These have been helpful and constructive developments.

35. Finally, it is recommended that this annex be read in conjunction with section IV of the main report, the comments and conclusions of the Executive Chairman.

Annex II

Findings of the international panel of experts on Iraq's full, final and complete disclosure of its proscribed biological weapons programme

1. On 11 September 1997, Iraq presented the United Nations Special Commission (UNSCOM) with the latest full, final and complete disclosure (FFCD) of its biological warfare (BW) programme. This followed the rejection of the previous June 1996 version in April of this year. This new document is the sixth in the series of declarations of BW by Iraq.

2. Between 29 September and 3 October 1997 a panel of 15 experts drawn from 13 Member States met at United Nations Headquarters to review the FFCD. The review took into account the information gathered by, and provided to, UNSCOM on Iraq's BW programme with a view to making an assessment for the Executive Chairman's October report to the Security Council.

Conclusions

3. Given only a short time to review the many hundred pages of the FFCD, the panel was nonetheless unanimous in its findings. The FFCD is not acceptable as a full, final and complete disclosure of the Iraqi BW programme, because in substance it is no different from the June 1996 version, which itself was rejected.

4. The panel unanimously agreed that the FFCD presented to UNSCOM on 11 September 1997 was incomplete and contained significant inaccuracies. It is in no way a full account of the scale and the scope of the BW programme that started about 1974. The only noticeable improvement is in presentation. It is clearer than its predecessors. The outstanding problems are numerous and grave. They cover all aspects of proscribed activity: planning, defining the requirement, concepts of use, military participation, procurement, research and development, production, trials, weapon filling, deployment, destruction and subsequent concealment and deception. In short, this FFCD does not, in the opinion of the panel, reveal the full extent of Iraq's engagement in BW. This failure to address many key areas of Iraq's past BW programme arises despite very specific repeated requests by the Commission to do so. Iraq continues to ignore those requests.

5. It is the view of the panel that Iraq has not complied with Security Council resolution 687 (1991) as regards BW.

Specific areas of concern

(a) Planning. All aspects of planning are omitted. This ranges from the circumstances surrounding the decision to commence the programme, right the way through to the present. There is no insight into the reasons for decisions, or who made them. Without such details it is not possible to assess the scale and scope of the programme;

(b) Military involvement. This is a programme that resulted in fielding BW weapons, such as bombs and missiles, yet there is a lack of detail of military (or intelligence) involvement. Indeed, Iraq continues to deny such involvement. Without this information it is not possible to assess the full scope of Iraq's BW programme;

(c) Defensive tone. The tone and content of the FFCD is defensive and does not demonstrate a willingness to comply with Security Council resolution 687 (1991). There are repeated attempts in the text to underplay and trivialize the BW programme. In reality the programme commenced in the very early 1970s and continued through five phases of development culminating in the commissioning of the 3 x 6 kilometre Al-Hakam plant with its research and development laboratories and production and storage facilities. A secret self-contained indigenous BW programme, it suffered only minor hiccoughs over its 20-year life;

(d) Weapons accounting. The accounting for weapon numbers is still incomplete and does not accord with information held by the Commission. This is, again, despite lengthy efforts at verification in the last few months. The panel has little confidence in the details concerning the scope of weapon development, manufacture, filling, deployment and destruction. Indeed, details of the testing of the helicopter-borne aerosol generators in 1988, present in the previous FFCD, have been deleted from the current version;

(e) Obliteration(?) of the programme. The implication contained in the FFCD that Iraq "obliterated" its programme in 1991 is false. Deception of UNSCOM and the continuance of the Al-Hakam project make this statement impossible to accept. Further, Iraq presents the account of its programme as though its objectives were the events that accompanied the Gulf War, whereas it is patently obvious that in 1990 the programme was immature and still in the process of further planned expansion and development;

(f) Exclusion of recent information. Iraq has not taken into account much of the information gathered during the ongoing verification process and appears not to have undertaken independent in-depth review of its programme, this despite the fact that both Iraq and UNSCOM are in possession of such information. This is rather disturbing, as it may indicate an unwillingness to proceed with proper verification. In doing so it seems that the verification mandate of the Commission has not been fully recognized;

(g) Internal inconsistencies. There are significant inconsistencies both within individual subject areas and over the FFCD as a whole. Such inconsistencies make it impossible to assess certain aspects of the programme;

(h) Exclusion of previously declared material. Another incomprehensible feature of the new FFCD is a reduction in detail in some areas. Facts that were previously stated have been omitted. The reasons for this are not stated and are not immediately apparent. A scant number of new facts are adduced, mostly without comment. A few of these appear highly significant and change the Special Commission's perception of parts of the programme. The full impact on our appreciation will take further investigation;

(i) Deception. Only two short paragraphs mention, let alone explain, the circumstances surrounding the decision to deceive UNSCOM about the very existence of the programme between May 1991 and August 1995. There is no insight into this decision nor are those responsible identified;

(j) Background to the submission of the FFCD. After discussions on the nature of the new document to be provided, in which Iraq stated it only wanted to restructure the document, it then promised to provide the new FFCD by 20 August 1997. This would have allowed sufficient time for a thorough assessment before October. Instead, Iraq delivered the document over three weeks later at virtually the last opportunity. Iraq may have been trying to limit the time available to assess the FFCD. Certainly Iraq may try to dismiss any analysis of its 639-page document in so short a time as superficial or slipshod. In addition to that, Iraq clearly stated when handing over the document that the contents of the new FFCD were essentially the same as the previous one;

(k) Formats. In the introduction to the FFCD much is made of the use of the formats provided by the Commission, which Iraq states "span the entire scope of the programme". In reality many of the questions posed were incompletely answered, misquoted or ignored altogether.

6. The Panel has made a number of suggestions for the way ahead in dealing with the Iraqi BW programme. Further useful information can be obtained by conducting a detailed documented analysis of the FFCD. This would include a review of all relevant UNSCOM inspection reports, photographs, videos, Iraqi-provided documents, documents obtained from other sources, the testimony of Iraqi personnel involved in the programme and the physical evidence gathered.

7. The key questions to be addressed are:

(a) What aspects of the BW programme are not covered in the FFCD?

(b) What inaccuracies does it contain?

8. Such a process should assist in the continuing investigation of Iraq's BW programme.

Appendix

Inspection schedule in the reporting period from 11 April to 11 October 1997 (in-country dates)

Biological

2 April-4 July	BG 9
9-14 May	BW 49/UNSCOM 184
16-20 May	BW 50/UNSCOM 187
13-19 June	CBW 4/UNSCOM 190
5 July-present	BG 10
7-21 July	BW 51/UNSCOM 189
26 July-4 August	BW 52/UNSCOM 192
8-15 August	BW 53/UNSCOM 193
21-25 August	BW 54/UNSCOM 197
8-20 September	BW 55/UNSCOM 199
9-13 September	BW 56/UNSCOM 200

Chemical

16 January-23 April	CG 9
9-17 April	CW 37/UNSCOM 186
24 April-17 July	CG 10
5-14 May	CW 31/UNSCOM 153
13-19 June	CBW 4/UNSCOM 190
1-4 July	CW 38/UNSCOM 195
18 July-present	CG 11
26-30 August	CW 40/UNSCOM 198
10-20 September	CW 42/UNSCOM 203
22-26 September	CW 41/UNSCOM 202
29 September-8 October	CW 39/UNSCOM 196

Ballistic missiles

26 February-4 May	MG 12
24 March-3 October	BM 50/UNSCOM 175
5 May-3 August	MG 13
2-13 June	BM 56/UNSCOM 188
12-17 July	BM 57/UNSCOM 191
4 August-present	MG 14
11-26 August	BM 58/UNSCOM 204
18-26 August	BM 59/UNSCOM 205
5-19 September	BM 60/UNSCOM 206
26 September-4 October	BM 61/UNSCOM 208
7-11 October	MG 14A

Export/import

27 March-6 June	EG-5
7 June-23 July	EG-6
24 July-5 October	EG-7
6 October-present	EG-8

Concealment investigation missions

2-13 June	CIM 6/UNSCOM 194
19-24 September	CIM 7/UNSCOM 201
26 September-2 October	CIM 8/UNSCOM 207

Special missions to Baghdad

21-24 June	Deputy Executive Chairman's visit
21-25 July	Executive Chairman's visit
5-9 September	Executive Chairman's visit